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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/761,281	01/22/2004	Jun Iijima	02410267D1	3175
7055	7590	04/20/2005	EXAMINER	
GREENBLUM & BERNSTEIN, P.L.C.			HANLEY, JOHN C	
1950 ROLAND CLARKE PLACE			ART UNIT	
RESTON, VA 20191			PAPER NUMBER	
			2856	

DATE MAILED: 04/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<p align="center"><b>Office Action Summary</b></p>	<b>Application No.</b> 10/761,281	<b>Applicant(s)</b> IIJIMA ET AL.	
	<b>Examiner</b> John C. Hanley	<b>Art Unit</b> 2856	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 September 2004 and 18 January 2005.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-22 and 29-36 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-22 and 32-36 is/are rejected.
- 7) ☒ Claim(s) 1-9 and 29-34 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☒ Certified copies of the priority documents have been received in Application No. 10214154.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Art Unit: 2856

**DETAILED ACTION**

***Claim Objections***

1. Claims 1-9 and 29-34 are objected to because of the following informalities: Regarding claim 1, line 3, the terminal portion is connected to the lead of the detection portion, while in line 11, the lead of the detection element is in proximity to the terminal portion. This is inconsistent terminology, and contact is required for utility, according to the specification. In applicant's own words, proximity is defined as very close. Very close is not sufficient as contact is required for electrical conductivity. Applicant's argument on this point is not understood as to how actual contact and very near can be deemed consistent. Further, it is recited that the lead of the detection element is in proximity to the terminal portion, not the detection element as argued. Further, the lead being in contact with the terminal portion appears to be a major focus of the invention, as opposed to the detection element being in proximity.
2. Regarding claim 7, parent claim 1 already recites "a terminal portion fitting portion fitting the terminal portion therein." This is no different in scope than "the terminal portion is fitted into the holder portion" as argued by applicant. Thus, reclaiming this same limitation in claims 7, 16 and 20 is duplication of the same feature.
3. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

4. Claims 10-22 and 35-36 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Art Unit: 2856

5. Regarding claims 10 and 19, it is unclear what a "floating fashion" is where the holder is sealed in resin. Further regarding claim 10, the rod ends are unclear compared to the specification. In the specification, the end 12a is apparently the outer end, and end 12b, the inner end, is what supports in a "floating fashion". Further regarding claim 19, it is unclear how the rod-like projection can support the holder portion without projecting from the resin sealed portion, since portion 12a is disclosed as being a required element for supporting the holder.

6. Regarding claim 14, it is unclear what element of the disclosure that applicant regards as being the flange. Applicant, through his remarks, further clouds the issue by essentially stating that it "may be this, or it may be that". This is the antithesis of the "clarity and precision" legal argument that applicant relies upon to avoid a simple correction of the disclosure to clarify. Applicant's argument about the examiner's ability to use prior art against any alternative for the flange is a moot point, because it doesn't render what applicant regard's as the flange element any more clear or precise.

7. Regarding claim 15, it is not clear what surface is the front surface. Applicant did not amend this claim to correct this as alleged.

8. Claim 12 is rejected under 35 U.S.C. 112, fourth paragraph, for failing to further limit claim 11. If applicant considers the term "provided" to be more limiting than "formed", in claim 11, he has not attempted to explain this. The examiner considers the language "provided" to be broader than "formed", or certainly no more structurally limiting, especially where applicant has not provided a distinction in the specification or remarks.

Art Unit: 2856

***Claim Rejections - 35 USC § 103***

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-13 and 15-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakane et al (US-6291990) in view of applicant's admissions as set forth in the prior office action:

"Nakane shows a speed sensor including a detection element 2 having at least one lead, at least one terminal portion 4 electrically connected to the lead of the detection element; a holder portion 6 for holding the detection element and for fitting terminal portions 4a, 4b, 4c; wires 31a-c soldered to the opposite ends of the terminals; a resin sealing portion 5 that holds the detection element and terminal(s); and the lead(s) of the detection element are brought into proximity to a predetermined end location of the terminals when they are fit in the holder. A bent portion is formed in the terminal portion near the predetermined location (Figure 4D). The detection element is disposed on an end portion of the holder. The holder includes a groove 16a-c for the terminal portion, and a shield plate formed by the PC board between the grooves. The terminal includes a holding portion or notch (Figure 11) for holding the electric wire in a bundled state near where the wire is soldered. The terminal is bent from a flat plate. A rod-like projection or mold

Art Unit: 2856

pin 47 is used to hold the resin portion in a mold for injecting the resin. A concave portion in the resin is found near the molding-pin hole for the round magnet, and also in the front face at 5C (Figure 4E). Official notice is taken regarding the known use of metal used in an electrical conductor. Applicant admits that welding is a known technique for electrically connecting a wire, terminal, and/or leads.

"It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to weld the wires 31a-c of Nakane et al to the terminals 4a'-c', and to do the same to connect the other ends of the terminals to the detector leads, as admitted by applicant, for electrically connecting these elements. It would have been further obvious to use metal for the terminals, since metal is a known conductor. It would have been further obvious to bend the terminals near the wire connection point to arrange the direction of the wire exit in any convenient or desired direction to accommodate the sensor fitting in a particular location. Further, it would have been obvious to make the cross-section of the rod in any holdable shape so it can be gripped for its intended use of holding elements in a mold cavity."

11. Applicant's arguments filed on September 14, 2004 have been read and considered but are unpersuasive. Regarding claim 1, it is argued that the sensor of Nakane is "on" the circuit board rather than "in" the holder as recited in the claims. However, although not clearly specified as to how the sensor is mounted, it would have been obvious to one of ordinary skill in the art that component leads placed through vias in a circuit board to solder the

Art Unit: 2856

components to the board would read on "in" the circuit board holder. Further, applicant argues that the claimed invention includes a portion in which the terminal is fitted, where Nakano shows a different feature for same, without even stating what the difference is. This is similarly unpersuasive. Further unpersuasive is applicant's argument regarding applicant's admissions, which is unrelated to the admission specified by the Examiner.

12. Regarding claims 10 and 19, applicant's arguments rely upon claim language that no longer exists in the claims. Further, applicant has not structurally distinguished a mold pin that "is to be cut off" from one that isn't. With regard to applicant's argument that the mold pin is used to float the holder, it is understood from the specification that the pin "floats" the holder only while being encapsulated. Therefore, applicant's argument that the pin must float afterwards is not understood. Applicant further argues that since the pin of Nakane is pulled out, "clearly a portion of the pin will not be removed." However, the Examiner regards pulling the pin out in the entirety is at least a portion. Applicant further alleges that the role of the hole 12 of Nakane is different from that of the rod-like projection of applicant's invention. However, the Examiner never equated the hole and the rod-like projection. It is the pin and the projection that was equated.

13. Similarly, applicant has not clearly stated how the predetermined location of claim 3 distinguishes from the predetermined location of Nakane, as the bent portion of Nakane is in proximity to the lead of the detection element. Applicant's "proximity" is not distinguishable from Nakane's "proximity". Regarding the holes of Nakane, these can be regarded as grooves that passed through the circuit board. Further, it would have been obvious to one of ordinary skill in the art that the holes or vias could be positioned

Art Unit: 2856

at the edge of the board so as to be slots or grooves along the edge to lay the lead in to solder rather than to push them through holes.

14. Regarding the shield plate, the Examiner is entitled to the broadest reasonable interpretation. Applicant's shield plate maintains a barrier between terminals. The PC board of Nakane does the same thing.

15. Claims 32-34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakane in view of applicant's admissions as applied to claim 3, 1 and 8, respectively, above, and further in view of Hopkins et al (US-4,926,548). Hopkins et al show a groove or notch in a terminal for holding a wire to be welded to the terminal in figures 1, 3 and 5. The notch starts out wide to enable slipping the wire into a more narrow or reduced portion of the notch to hold the wire for soldering or welding. It would have been obvious to one of ordinary skill in the art to modify the terminal of Nakane as taught by Hopkins et al to accept and hold a wire for attachment to the terminal of Nakane.

#### **Conclusion**

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the



Art Unit: 2856

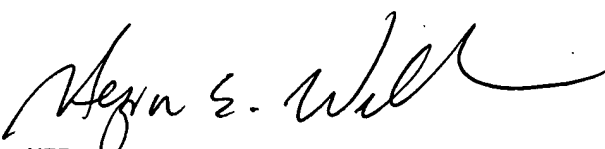
advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John C. Hanley whose telephone number is 571-272-2195. The examiner can normally be reached on M-F 9AM-5:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on 571-272-2208. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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